

Amendment to the Claims:

✓ This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-5 (canceled)

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Claim ¹/~~6~~ (Currently Amended) A method of communication over a LAN comprising a plurality of LAN hubs coupled to computing equipment for performing data communication, a plurality of concentrators coupled to voice telephones, and a LAN switching unit, having a plurality of ports and for switching and connecting between the plurality of the LAN hubs, and the plurality of the concentrators for voice telephones, the method comprising the step of:

performing call control for the voice telephones coupled to each of the concentrators with the computing equipment in each of the LAN hubs wherein in case that a response from a PC or work station on the call-in side is not obtained, arrival of a call request is notified, and the response is detected by use of control channel signals of a voice telephone interface on the call-in side.

Claim 7 (Canceled)

Claim ²/~~8~~ (Currently Amended) A method of communication over a LAN comprising a plurality of ~~the~~ concentrators for voice telephones ~~according to Claim 1, a plurality of~~

~~LAN hubs accommodating equipment for performing data communication over the LAN, and the LAN switching unit having a plurality of ports, installed in a LAN comprising a LAN switching unit having a plurality of ports, for switching and connecting a plurality of interfaces, and a plurality of LAN hubs accommodating equipment connected to the LAN switching unit via the interfaces, respectively, and for performing data communication over the LAN, said concentrator comprising:~~

_____ a LAN interface connected to the LAN switching unit;
_____ at least one voice telephone; and
_____ at least one set of voice telephone interfaces connected to the at least one voice telephone, wherein digital or analog voice data transmitted and received by the at least one set of the telephone interfaces are converted into MAC frames or IP packets, and the digital or analog voice data converted into the MAC frames or IP packets are relayed to the LAN interface, the method comprising wherein routing of packetized voices for communication by voice telephones between the concentrators for voice telephones is performed by switching and connecting operation of the LAN switching unit based on the MAC address in a MAC frame in which the packetized voices are assembled.

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Claim ~~9~~ (Currently Amended) A method of communication over a LAN comprising a ~~plurality of LAN hubs accommodating equipment for performing data communication, a plurality of the concentrators for voice telephones according in Claim 1~~ a plurality of interfaces, and a plurality of LAN hubs accommodating equipment connected to a LAN

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avail.*

switching unit via the interfaces, respectively, and for performing data communication over the LAN, and a plurality of voice concentrators, said concentrators comprising:

a LAN interface connected to the LAN switching unit;

at least one voice telephone; and

at least one set of voice telephone interfaces connected to the at least one voice telephone, wherein digital or analog voice data transmitted and received by the at least one set of the telephone interfaces are converted into MAC frames or IP packets, and the digital or analog voice data converted into the MAC frames or IP packets are relayed to the LAN interface, and a the LAN switching unit, having a plurality of ports and for switching and connecting between the plurality of the LAN hubs and the plurality of the concentrators, the method comprising packetizing for voice telephones, wherein voice data transmitted and received by the voice telephones are packetized for communication over the LAN by applying a frame having a function of absorbing fluctuation in arrival time of the packetized voices to the data block of a MAC frame.

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Claim 10 (Previously Presented) A system for communicating with voice telephones over a LAN, comprising:

a LAN switch;

a plurality of LAN hubs performing data communication and coupled to the LAN switch via respective first LAN interfaces;

computing equipment coupled to the LAN hubs via respective second LAN interfaces;

a plurality of concentrators coupled to the LAN switch via respective third LAN interfaces; and

voice telephones coupled to the concentrators via respective voice interfaces that transmit and receive digital or analog voice data, wherein the concentrators are adapted to receive the digital or analog voice data from the voice interfaces and convert it into MAC frames or IP packets and to relay the converted digital or analog voice data to the third LAN interfaces.

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cont.
Claim ⁵~~11~~ (Previously Presented) The system of Claim ⁴~~10~~, wherein the concentrators each comprise a CPU, and further comprising fourth LAN interfaces coupled between the CPUs and respective ones of the LAN hubs for transmitting and receiving data.

Claim ⁶~~12~~ (Currently Amended) A telecommunication apparatus for voice telephones installed in a LAN including a plurality of LAN equipment, the telecommunication apparatus comprising:

at least one LAN interface coupled to the LAN equipment;

a CPU;

at least one voice telephone;

c a set of voice telephone interfaces ~~adapted~~ to receive and transmit digital and
c analog voice data or call control data between the CPU and the at least one voice
telephone, wherein the CPU ~~is adapted to convert~~^s the digital and analog voice data or call
control data into IP packets or MAC frames and transmit the IP packets or MAC frames
c to the at least one LAN interface wherein the set of voice telephone interfaces are adapted
c to perform a BORSCHT function.

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Claim ~~13~~ (Previously Presented) The telecommunications apparatus of claim ~~12~~, further
comprising a router connected to at least one LAN interface and to a LAN hub or outside
of the LAN.

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Claim ~~14~~ (Previously Presented) The telecommunications apparatus of claim ~~12~~, wherein
the LAN equipment includes one of a LAN hub and a LAN switching unit.

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Claim ~~15~~ (Previously Presented) The telecommunications apparatus of claim ~~12~~, further
comprising a LANC circuit coupled to the CPU and voice telephone interface for
assembling and disassembling a MAC frame.

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Claim ~~16~~ (Previously Presented) The telecommunications apparatus of claim ~~12~~, wherein
the call control data are converted into a call control protocol according to TCP/IP.

Amendment
U.S. Application No. 09/254,864

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cancel
Claims 17-25 (Canceled)
